

REMARKS

In an Office Action mailed on May 23, 2005, the Examiner rejected claims 1-23 under 35 U.S.C. § 102(b) as being anticipated by Lee (U.S. Pat. No. 6,154,716).

By this Amendment, Applicants amend claims 9, 10, 17, and 21 to make minor changes and respectfully traverse the rejection of claims 1-23 under 35 U.S.C. § 102(b) for at least the reasons given below.

Claims 1-6 are patentable at least because Lee fails to teach determining a second order response of a model using a first order transfer function and a first order response and determining a third order response of the model using the first order transfer function and the second order response. The Examiner cites to column 5, lines 21-54, column 6, lines 59-60, and column 10, lines 41-45 of Lee to conclude that Lee teaches determining a second order response of a model using a first order transfer function and a first order response.

Applicants respectfully disagree with the Examiner's characterization of the teachings of Lee for at least the following reasons. Column 5, lines 21-54 of Lee are directed to calculation of a steady state solution to a circuit equation using the Harmonic Balancing technique. As explained by Lee, this technique is performed in the frequency-domain and thus Lee further discusses using a Discrete Fourier Transform to transform the circuit equation into frequency-domain from time-domain. Next, in the cited portion of Lee, Lee provides a frequency-domain representation of the time domain circuit equation. Lee further discusses solving this equation using a Newton-Raphson method. Lee, however, does not teach determining a second order response of a model using a first order transfer function and a first order response, as indicated by the Examiner. The next cited portion of Lee (col. 6, ll. 59-60) merely notes that a "finite-differencing expression" is referred to as forward-differencing when a variable, $a > 0$, and as backward-differencing when $a < 0$. That cited portion of Lee, however, fails to teach determining a second order response of a model using a first order transfer function and a first order response. The final cited portion of Lee (col. 10, ll. 41-45) relates to computing the inverse of a matrix (M^{-1}) using a preconditioning matrix generator. Apparently, the preconditioning matrix generator improves the speed and accuracy of an equation solver. (col. 9, ll. 7-11). That portion of Lee, however, also fails to teach determining a second order response of a model using a first order

transfer function and a first order response. Thus, Applicants respectfully submit that claims 1-6 are patentable over Lee, at least because Lee fails to teach determining a second order response of a model using a first order transfer function and a first order response.

Additionally, Lee fails to teach determining a third order response of the model using the first order transfer function and the second order response, as required by claims 1-6. The Examiner cites to column 5, lines 47-54, column 6, lines 59-67, column 7, lines 1-6, and column 10, lines 45-53 of Lee to conclude that Lee teaches determining a third order response of the model using the first order transfer function and the second order response.

Applicants respectfully disagree with the Examiner's characterization of the teachings of Lee for at least the following reasons. Column 5, lines 47-54 of Lee are directed to solving an equation using the Newton-Raphson method and to selecting an initial value to start the iterations related to using this method. Lee, however, does not teach determining a third order response of the model using the first order transfer function and the second order response, as indicated by the Examiner. The next cited portion of Lee (col. 6, ll. 59-67) is directed to calculating the product of a Jacobian matrix using a central finite-differencing equation. It, however, does not teach determining a third order response of the model using the first order transfer function and the second order response. The next cited portion of Lee (col. 7, ll. 1-6) relates to further discussion of calculating the product of a Jacobian matrix using a central finite-differencing equation. Thus, this cited portion of Lee also fails to teach determining a third order response of the model using the first order transfer function and the second order response. The final cited portion of Lee (col. 10, ll. 45-53) concerns continued discussion related to computing the inverse of a matrix (M^{-1}) using a preconditioning matrix generator. That portion of Lee, however, also fails to teach determining a third order response of the model using the first order transfer function and the second order response. Accordingly, for at least the reasons given above, Applicants respectfully request the Examiner to withdraw the rejection of claims 1-6 under 35 U.S.C. § 102(b).

Claims 7-10 are also patentable over Lee because, for at least the reasons given above with respect to claims 1-6, Lee fails to teach determining a second order response of a model using a first order transfer function and a first order response. Accordingly, Applicants

respectfully request the Examiner to withdraw the rejection of claims 7-10 under 35 U.S.C. § 102(b).

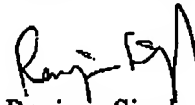
Claims 11-21 are patentable at least because Lee fails to teach solving for a second order estimate of a first solution using a first order transfer function at a second predetermined inputs and a first order response. The Examiner cites to column 5, lines 47-58, column 6, lines 59-67, column 7, lines 1-6, lines 24-43, and column 10, lines 45-53 of Lee to conclude that Lee teaches solving for a second order estimate of a first solution using a first order transfer function at a second predetermined inputs and a first order response.

Applicants respectfully disagree with the Examiner's characterization of the teachings of Lee for at least the following reasons. Column 5, lines 47-58 of Lee are directed to solving an equation using the Newton-Raphson method and to selecting an initial value to start the iterations related to using this method. Lee, however, does not teach solving for a second order estimate of a first solution using a first order transfer function at a second predetermined inputs and a first order response, as indicated by the Examiner. The next cited portion of Lee (col. 6, ll. 59-67) is directed to calculating the product of a Jacobian matrix using a central finite-differencing equation. It, however, does not teach solving for a second order estimate of a first solution using a first order transfer function at a second predetermined inputs and a first order response. The next cited portion of Lee (col. 7, ll. 1-6, ll. 24-43) relates to further discussion of calculating the product of a Jacobian matrix using a central finite-differencing equation. That discussion further relates to using a tester to test whether the solution to an equation is within the required accuracy. Thus, this cited portion of Lee also fails to teach solving for a second order estimate of a first solution using a first order transfer function at a second predetermined inputs and a first order response. The final cited portion of Lee (col. 10, ll. 45-53) concerns continued discussion related to computing the inverse of a matrix (M^{-1}) using a preconditioning matrix generator. That portion of Lee, however, also fails to teach solving for a second order estimate of a first solution using a first order transfer function at a second predetermined inputs and a first order response. Accordingly, for at least the reasons given above, Applicants respectfully request the Examiner to withdraw the rejection of claims 11-21 under 35 U.S.C. § 102(b).

Claim 22 relates to a computer-readable medium claim corresponding to method claim 7 and thus includes limitations similar to claim 7. Accordingly, Applicants respectfully submit that claim 22 is patentable for at least the reasons given above with respect to claim 7. Claim 23 depends from claim 22 and is thus patentable for at least the reasons given above with respect to claim 22. Accordingly, for at least the reasons given above, Applicants respectfully request the Examiner to withdraw the rejection of claims 22 and 23 under 35 U.S.C. § 102(b).

Applicants respectfully request reconsideration and allowance of claims 1-23, thereby placing the application in condition for allowance. Should issues remain that might be subject to resolution through a telephonic interview, the Examiner is requested to telephone the undersigned at (512) 996-6839.

Respectfully submitted,



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